CERCLA
Preliminary Assessment

Illinois Environmental
Protection Agency

CERCLA Preliminary Assessment

For:

Cannell/Puri Development
Winnebago County, Rockton, IL
ILN# 000510203

PREPARED BY:
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF LAND
DIVISION OF REMEDIATION MANAGEMENT
OFFICE OF SITE EVALUATION

AUGUST 2007

PRELIMINARY ASSESSMENT
Cannell/Puri Development

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Section 1.0 Introduction

On July 13 2006, the Region 5 Offices of the United States Environmental Protection Agency's (U.S. EPA) received a written petition to conduct a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Preliminary Assessment of the Cannell/Puri Development property (Cannell property). The property in question is an approximately 105 acre parcel of agricultural land located approximately one and one-half miles north west of the Village of Rockton Illinois.

This request was fostered by local resident's concerns that past sludge disposal activities that had occurred on this property may have resulted in contamination; contamination which may have adversely impacted public health and/or the environment. Because the Illinois Environmental Protection Agency (Illinois EPA) is under Cooperative Agreement with the U.S. EPA to conduct all CERCLA investigations within the State of Illinois, the Illinois EPA was tasked to undertake this assessment.

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR Part 300) requires that a Preliminary Assessment be performed on all sites entered into the Comprehensive Environmental Response, Compensation, Liability, and Information System (CERCLIS), the U.S. EPA's inventory of hazardous waste sites.

A Preliminary Assessment is the initial step in the Superfund process which utilizes a limited-scope investigation and collects readily available information. The Preliminary Assessment is designed to distinguish between sites that pose little or no threat to human health and the environment and those that require further investigation.

The Preliminary Assessment also supports emergency response and removal activities, fulfills public information needs, and generally furnishes appropriate information about the site early in the CERCLA assessment process.

If the findings of the Preliminary Assessment determine that further investigation is necessary, the site will continue to progress through the Superfund investigative process and receive a CERCLA Site Inspection. A Site Inspection will evaluate the extent that a site presents a threat to human health and/or the environment. This may be accomplished by collecting and analyzing wastes and environmental media samples to determine whether hazardous substances are present at the site and are migrating to the surrounding environment. The Site Inspection will provide necessary information that will determine if the site qualifies for possible inclusion on the National Priorities List (NPL) or should have No Further Remedial Action Planned (NFRAP).

At any time throughout the Superfund evaluation process, the site may be NFRAP, be referred to another state or federal clean-up program, or be recommended for further action. The Preliminary Assessment is performed under the authority of CERCLA.

Section 2.0 Site Background

Section 2.1 Site Description

The Cannell property is a 105 acre parcel of land located approximately one mile to the north west of the Village of Rockton Illinois and is approximately one thousand feet north of the intersection of Rockton Road and Prairie Avenue. The property is located in North East quarter of Section 15, Township 46 north, and Range 1 east; and

South East quarter of Section 10, Township 46 north, and Range 1 east. This property is located in a rural area of Winnebago County, approximately two miles south of the Illinois-Wisconsin border. The central point of the property is located at 42.471016 latitude and -89.102272 longitude.

Farm fields borders the property to the west, south, and southeast. The northern boundary of the property is bordered by Langstone Estates which contains approximately 20 homes. Approximately ten homes lie across Prairie Road to the Northeast of the property. Prairie Avenue becomes Prairie Road once it passes Yale Bridge Road to the north.

The property is relatively flat with little local relief. Surface water run-off from the northern and central portions of the property drains to the east into a roadside ditch which parallels Prairie Road. Waters from this ditch ultimately flow into the Rock River. Surface water run-off from the southern portions of the property drains to the south, south-west across a neighboring farm field to a road-side ditch which borders the Rockton Township Road. Waters from this ditch also flow ultimately into the Rock River.

An interview with the current owner indicates that the Cannell property has been in the Cannell family for more than 55 years. Through out that time the Cannell family grew row crops. During this interview the owner stated that in an attempt to increase farm yield on this land in the early 1960s the owner permitted the City of Beloit, Wisconsin to apply municipal sewage sludge to the surface of the land. In addition, it was indicated that for a number of years in the 1960s and early 1970s municipal sewage sludge was routinely applied to the property.

A site reconnaissance of the property was conducted by staff of the Illinois EPA on January 3, 2007. During this visit it was observed, with the exception of a tree row that bordered the property to the north, all the remaining land had been in agricultural production the previous year; beans or corn had been the principal crop. Although the ground was frozen at the time of reconnaissance there were no signs of dead or stressed vegetation.

Section 2.2 Site History

An investigation of Plat books for Winnebago County, located at the City of Rockford public Library, revealed that in 1905 T.M. Carpenter owned the property in question property and that by 1934 A. Aspland had assumed ownership of the property. Plat book insurance maps indicate that between 1934 and 1949 the Cannell family then assumed ownership of the property in question, the property has been owned by the Cannell family since that time.

Reviewing plat maps coupled with an interview from the current owner indicates that the property has continuously been used for agricultural purposes and there seems to be no indication of any other land usage. As previously discussed, the current owner has stated that in the early 1960s in an attempt to increase farm yield on the property the owner permitted the City of Beloit Wisconsin to apply municipal sewage sludge to the surface of the lands. In addition, for a number of years in the 1960s and early 1970s municipal sewage sludge were routinely applied to the property.

On July 13, 2006, the Region 5 Offices of the U.S. EPA received a written petition to conduct a CERCLA Preliminary Assessment of the Cannell property. On

November 29, 2006 a representative of the Illinois EPA Office of Site Evaluation traveled to the Rockton Township building in Rockton to meet with the authors of the petition. The meeting was conducted in order to discuss the upcoming environmental investigation of the Cannell property in order to determine if the authors of the petition processed any additional information regarding the history or conditions of the site in question.

The petitioner suggested that he had information indicating that a governmental entity had installed four (4) monitoring wells on the property in the early to mid 1980's. He also indicated that an adjacent property owner had met with the City of Beloit's Public Works Superintendent and obtained file information on the sludge that was allegedly applied to the property. Subsequently, it came to light that a previous study was conducted in the early 1980's by the Department of Energy and Natural Resources State (Geological Survey), on the hydrological impacts of applying municipal sewage to agricultural lands.

Section 2.3 Regulatory Status

A review of existing records suggests that the property in question is not subject to the Resource Conservation and Recovery Act (RCRA) corrective action authority. Information currently available does not indicate that the site is under the authority of the Atomic Energy Act (AEA), Uranium Mine Tailings Action (UMTRCA), or the Federal Insecticide Fungicide or Rodenticide Act (FIFRA). The site is currently not enrolled in the Illinois EPA Site Remediation Program.

Section 3.0 Field Inspection Activities

Section 3.1 Past Environmental Investigations

In March 1983 the Illinois Department of Energy and Natural Resources (State Geological Survey), began a two year study on the hydrogeology of sewage sludge application to agricultural lands near Rockton, IL. The site in question was one of the parcels of agriculture land under evaluation in the study. The study indicates eight applications of sewage sludge between 1979 and 1985 (last year of study) on to the particular site. The study did not have accurate information on the specifics of sewage sludge applications prior to 1979, but as discussed earlier the owner of the property indicated that sludge application began sometime in the 1960s. As a part of the study, seven groundwater monitoring wells were installed at an average depth of 30 feet and two soil-water samplers were installed at 18 feet and 8.5 feet. Monitoring wells were regularly developed and sampled within the study period concluding July of 1985.

The study focused on nitrates, MBAS, chlorides, NH3N, pH, hardness, specific conductivity, metals, and organic chemicals within groundwater onsite and both up and down gradient from the site. The study concluded that nitrate levels were elevated onsite and in downgradient wells and that nitrates averaged more than the maximum allowable drinking water concentration. The study also concluded that nitrates in the groundwater showed a steady decline over the period of sampling. The effect of the application of sewage sludge reflected by values of MBAS, chlorides, NH3N, pH, hardness, and specific conductivity were not clear. Groundwater contamination from metals in the

sewage sludge was non-existent or negligible. Finally, there was no evidence of contamination from organic chemicals.

The study concluded that the results were limited by the lack of data on sludge application procedures, including quantities and characterization; in addition the study is limited by a lack of data on groundwater quality at the time of sludge application and limited data on background sites. Overall, the study suggests that there is a negligible or non-existent effect on the hydrogeology of the area in question and that there a negligible or non-existent evidence of groundwater contamination.

Section 3.2 Field Inspections

In response to the written petition to conduct a CERCLA Preliminary Assessment of the Cannell property site filed in November of 2006, a site reconnaissance of the property was conducted by staff of the Illinois EPA on January 3, 2007. During this visit it was observed, with the exception of a tree row that bordered the property to the north, all the remaining land had been in agricultural production the previous year and beans or corn had been the principal crop. Although, the ground was frozen, there were no signs of dead or stressed vegetation.

On January 11, 2007, staff of the Illinois EPA traveled to the property in question for the purpose of conducting X-ray fluorescence (XRF) (a field based instrument used to detect and measure inorganic elements in soil samples) measurements at the property in question. On January 11th the property owner granted IEPA staff access to the property for the purpose of taking XRF measurements. XRF data was collected at 11 locations; at each location an XRF surface soil reading and a reading of soil at a depth of 10-18 inches were collected. The following day staff of the Illinois EPA returned to the property and

data collection was undertaken at an additional 11 locations, two samples per location, one at the surface and one at 12-18 inches. In addition, 4 readings were collected adjacent to the property at a depth of 8 inches within the drainage ditch running along Prairie Road.

Subsequent to the XRF measurements taken on January 11th and 12th, it was determined that a supplemental round of XRF measurements might be warranted. IEPA contacted the property owner requesting access to the property in order to perform a supplemental round of XRF measurements. The property owner did not grant access to the property for the supplemental round of XRF measurements.

On June 6, 2007, staff of the Illinois IEPA traveled once more to the property in question in order to examine local topographic conditions as well as the surface water pathway. The surface water run-off from the actual site was examined. In addition to examining the immediate surface water run-off pathway from the property, staff toured and examined the over-land flow of surface waters through the Nygren Wetlands less than a mile south of the property. Staff also observed that crops were planted this season and agricultural use of the property continues.

Section 3.3 Analytical Data

The following analytical data was collected using XRF. Table 1 includes established background levels of inorganic metals for the locality of the Cannell property. Table 2 includes the actual analytical detections and measurements collected using the XRF during field inspections. In table 2 an "S" or "D" respectively indicates whether or not the XRF soil measurements were collected at surface level or below surface level.

Table 1

	Sr	Pb	As	Zn	Mn	Cr	Ag	Fe	Ba
BACKGROUND	NA	36	13	95	636	16.2	0.55	15900	110

Table 2

Reading No	Sr	Pb	As	Zn	Mn	Cr	Ag	Fe	Ba
X101-S	205.0	18.82	5.5	ND	509.73	ND	113.78	23059	968
X102-S	36.53	22.17	2.07	ND	197.85	0.91	124.77	4618	244
X102-D	35.66	ND	8.92	33.88	ND	75.35	ND	3761	141
X103-S	37.54	14.32	ND	ND	63.52	ND	ND	4280	205
X103-D	34.84	17.1	ND	ND	152.57	83.47	234.72	6824	238
X104-S	27.08	ND	2.95	ND	119.79	ND	180.51	3726	219
X104-D	34.59	11.51	ND	ND	62.43	5.8	ND	4786	142
X105-S	38.68	8.75	ND	ND	84.33	101.58	NA	6010	NA
X105-D	39.54	6.33	ND	ND	266.16	95.92	NA	6793	NA
X106-S	34.34	16.68	5.67	ND	364.84	ND	177.98	8544	270
X106-D	39.71	35.08	ND	18.81	213.96	ND	ND	8148	379
X107-S	31.27	13.97	ND	ND	181.3	ND	ND	6028	256
X107-D	33.41	15.37	ND	ND	82.45	95.53	246.88	6374	221
X108-S	33.29	3.64	8.9	ND	126.46	173.91	ND	5391	119
X108-D	39.19	3.19	5.53	ND	242.77	116.65	ND	4835	123
X109-S	26.6	8.24	ND	ND	204.14	226.08	ND	7896	320
X109-D	39.71	9.26	ND	ND	298.78	243.7	4.92	9733	276
X110-S	37.33	18.93	ND	ND	187.19	79.98	19	5193	227
X110-D	33.87	10.96	ND	ND	100.05	27.38	79.78	4491	197
X111-S	38.54	45.7	ND	ND	307.02	305.17	196.68	6809	202
X111-D	31.24	8.83	1.42	ND	291.25	65.14	59	7440	198
X112-S	34	3.7	2.7	ND	85.42	189.42	103.64	7044	236
X112-D	43.85	19.06	4.28	ND	368.25	144.2	104.54	8983	266
X113-S	33.02	ND	4.98	ND	143.62	ND	ND	4732	173
X113-D	36.93	17.31	ND	ND	65.25	ND	ND	6002	278
X114-S	29.8	5.91	1.47	ND	168.35	158.32	ND	4776	198
X114-D	27.54	19.85	ND	ND	118.43	188.59	ND	5035	191
X115-S	36.44	3.73	ND	ND	207.38	263.3	ND	5588	222
X115-D	35.65	1.31	ND	ND	289.93	64.02	ND	7606	249
X116-S	38.1	ND	3.38	ND	320.81	ND	274.93	7043	203
X116-D	38.94	9.4	ND	ND	208.96	154.78	374.36	8492	277
X117-S	37.6	5.79	ND	ND	306.56	147.39	7.97	6155	232
X117-D	37.21	ND	6.11	ND	212.09	20.84	ND	7511	273
X118-S	34.13	1.62	ND	ND	183.68	37.59	128.53	5088	210
X118-D	38.8	16.47	ND	ND	297.36	93.29	147.08	8501	171
X119-S	43.42	4.74	ND	ND	132.56	10	ND	5966	111
X119-D	37.47	9.49	4.66	ND	324.94	63.95	35.76	6686	115
X120-S	35.77	ND	13.14	ND	257.99	ND	ND	5387	18
X120-D	32.02	6.38	ND	ND	190.49	ND	212.63	7849	154

X121-S	28.94	15.19	ND	ND	145.03	86.4	136.04	4746	186
X121-D	25.06	6.83	ND	ND	131.13	ND	ND	3609	125
X122-S	20.1	21.71	ND	82.92	322.08	170.56	228.57	4514	132
X122-D	30.14	1.69	19.58	53.01	266.29	102.16	24.81	7442	199
X123-S	39	14.04	-3.6	ND	255.68	75.36	578.22	7143	330
X124-S	41.16	13.74	-8.3	ND	226.36	ND	ND	7353	211
X125-S	43.02	25.58	ND	ND	252.53	ND	240.45	9223	253
X127-S	21.93	16.96	0.53	55.64	223.27	ND	20.26	5181	127
X127-D	35.08	25.81	8.76	137.72	267.47	ND	ND	7266	171

Section 4.0 Potential Sources

Section 4.1 Source

The potential source for the Cannell property is land farming/land treatment operation that occurred over the entire 105 acre property. The concern with land farming/land treatment with municipal sewage sludge is the possible existence of hazardous metals within the sewage sludge (namely cadmium, copper, chromium, and lead). In an attempt to increase farm yield on this land in the early 1960s the owner permitted the City of Beloit Wisconsin to apply municipal sewage sludge to the surface of the lands. Land treatment in the form of applying municipal sewage sludge continued through the 1970s and into the mid-1980s.

Section 5.0 Pathway Discussions

Section 5.1 Groundwater

The groundwater pathway is primarily concerned with the potential of contaminants to migrate into the local groundwater, which is reflected in the characterization of the geological conditions underlying the property in question. Second,

the groundwater pathway is concerned with the existence and impact on drinking water wells and resources within the area where a contaminant had migrated into the groundwater.

The Cannell property is situated near the corner or Rockton Road and Prairie Avenue about one mile to the north west of the municipality of Rockton. Geology of the area consists of unconsolidated glacial drift overlaying Ordovician surficial bedrock formations. To a depth of 20 feet, the material is composed of the Eolian Parkland Sand underlain by outwash sands and gravels of the Mackinaw Member of the Henry Formation. The area is situated adjacent to an ancient bedrock valley that has been cut by the regions many rivers and streams; in the bedrock valley glacial drift consists of outwash sand and gravel deposits. Ordovician formations in the area include both Galena-Platteville and Glenwood-St. Peter formations.

The Cannell property is surrounded by a number of private residents that utilize private water supply systems, which according to the State of Illinois Geological Survey records, typically obtain water from unconsolidated shallow materials and surficial bedrock formations. There are approximately 1063 private wells located within a four mile radius of the Cannell property. In Winnebago County there is on average 2.53 people per household, using this information it can be determined that the private wells surrounding Winnebago County service approximately 2,689 people.

Within 2-3 miles of the Cannell property the municipality of Rockton utilizes three community water supply wells. The three wells are at different depths and combine to form a blended system that services an estimated population of 5,407. Well #5 is located approximately 2-3 miles to the south east of the Cannell property, is 120 feet

deep, and produces from an unconfined sand and gravel aquifer. Well #6 is located approximately 2-3 miles to the south east of the Cannell property, is 725 feet deep, and produces from a confined deep bedrock aquifer. Well #7 is located approximately 2-3 miles to the south east of the Cannell property, is 594 feet deep, and produces from a confined deep bedrock aquifer. Well #5 draws water from outwash material that consists of sand and gravel while, Well #6 and #7 draw water from confined bedrock aquifers situated in deeper Cambrian formations such as Mt. Simon.

The City of South Beloit is part of the City of Beloit, Wisconsin public water supply which is owned by the Alliant Energy - South Beloit. The supply has eight wells, one of which is located in South Beloit, Illinois. This is Well #3 which services an estimated population of 4,700. Well #3 is located approximately 3-4 miles to the north east of the Cannell property; the well is 1,185 feet deep and utilizes a deep bedrock aquifer which, is overlain by permeable alluvial deposits. In addition to the three wells servicing the municipality of Rockton the Goldie B. Floberg Center, approximately three to four miles from the site, operates on a community water supply well. The Goldie B. Floberg Center is a three year CARF accredited Agency for Community housing that serves both adults and children with development needs.

Within a four mile target radius of the property in question, there are numerous private wells, several community water supply wells, and multiple non-community water supply wells. Within that four mile target radius there is a total target population of approximately 12,000-13,000 people.

The hydrological study done in the 1980s by the department of Energy and Natural Resources (State Geological Survey) did provide evidence of copper at a level

that was three times the background level, therefore constituting an observed release into the groundwater. Although, there was evidence of copper being released into the groundwater, the study did conclude that the effects of sewage application to agricultural lands on hydrology were non-existent or negligible. In addition, due to the scope of the investigation there was no evidence collected to suggest the migration of contaminants off the Cannell property.

Section 5.2 Surface Water

The surface water pathway consists of two parts. First part is the overland flow and its path to the probable point of entry (PPE) into a perennial surface water river, lake, or stream. From there, the surface water pathway extends for 15 miles from the probable point of entry (PPE) (See appendix C).

Run-off from the northern portion of the site flows to the east into a roadside ditch that parallels Prairie Avenue. Run-off then flows north through the ditch that parallels Prairie Road where, as indicated in an interview with an adjacent residence, water collects approximately 150 yards north of the property in question where it pools and then percolates into the ground.

Overland flow of site run-off water from the central and southern portion of the property flows east into the previously discussed ditch that runs parallel to Prairie Avenue. Unlike run-off from the northern portion of the site, run-off from the central and southern portions that enters the roadside ditch flows to the south east corner of the property where at that point it flows through a culvert under Prairie Avenue to the adjacent farm field. From that point run-off flows south for approximately 500 feet south

across a farm field and then it flows in a south western direction once again crossing under Prairie Avenue by way of a culvert. Surface water then flows 1,000-2,000 feet to the south west where it then crosses under Rockton Road and enters into a ravine that cuts through lands owned by the National Land Institute Nygren Wetlands. In an interview with a project manager at the Nygren Wetlands, the previously discussed pathway of run-off water from the site in question was corroborated. Water flows south west through the ravine south of Rockton Road for approximately 1,000 feet to the probable point of entry (PPE) where it meets the Nygren wetlands. The Nygren wetlands are contiguous to the Pecatonica River.

An interview with the executive manager and the project manager at the Nygren Wetlands indicates that the surface water flows within the Nygren wetlands has been altered considerably by human activities. Surface water flows through the Nygren wetlands to the south east from the PPE at the mouth of the previously discussed ravine. Surface water flows through the Nygren wetlands and enters the Pecatonica River approximately 2,000 feet away from the confluence of the Pecatonica and Rock River. The surface water pathway extends from the PPE in the Nygren wetlands to the Pecatonica River, and terminates at a point in the Rock River adjacent to the northern Rockford suburb of North Park. Information collected in the road-side ditch and at the point surface-water crosses back under Prairie Road and heads in a south western direction, suggests that contaminants are not migrating via overland flow off the site.

The 15 mile surface water pathway is contiguous to approximately 12.06 miles of sensitive wetland environments. In addition, both the Pecatonica and Rock River are used recreationally and as fisheries. While, there is no surface water intakes used for human

consumption known to exist: the National Heritage database indicates that there may be several protected resources or endangered species within the vicinity of the Cannell property. The protected resources within the locality of the Cannell property are the Black Sandshell (Ligumia recta), the Iowa Darter (Etheostoma exile), and the Starhead Topminnow (Fundulus dispar). The Nygren Wetland in which the PPE is located and the surface water migration pathway passes through on its way to the Pecatonica River is owned by the non-profit Natural Land Institute but is not designated by the Illinois Department of Natural Resources as a protected Natural Area.

Section 5.3 Groundwater to Surface water

The groundwater to surface water pathway was evaluated and due to the fact that the Cannell property is located nearly ¾ of mile from the closest perennial surface water body, the Cannell property is anticipated to have no impact on the groundwater to surface water pathway.

Section 5.4 Soil Exposure

The Cannell property is a 105 acre parcel of land located approximately one mile to the north west of the Village of Rockton Illinois, approximately one thousand feet north of the intersection of Rockton Road and Prairie Avenue. The property has been and is currently used for agricultural purposes. The site reconnaissance conducted in June 2007 confirms that the site is still being used for agricultural row-crop purposes. Currently, there are no structures on the property nor are there any barriers preventing or restricting access to the property. The Northern boundary is adjacent to the yards of

several residential dwellings and separated only by a row of trees. Half of the eastern boundary is lined with residential dwellings located just across the Prairie Road from the property in question. There are no schools or daycares within 200 feet of the contaminated portions of the site in question. Data gathered through on site investigations revealed that several substances (Barium, Chromium and Silver) exceeded background level criteria for establishing observed contamination. Although, contamination did exceed background levels in a manner that establishes observed contamination, levels of contamination did not exceed any health-based benchmarks.

Section 5.5 Air Pathway

The air pathway was evaluated and was not deemed to be a significant threat at this site. Although several substances were found to be present in surface soils at concentrations that met or exceeded CERCLA criteria for observed contamination, they were not found in concentrations that met or exceeded health-based criteria.

Section 6.0 Summary

The Illinois EPA's Office of Site Evaluation was tasked to evaluate the Cannell property site to determine its current and potential impact on the surrounding human populations, area groundwater, and nearby surface waters. The evaluation utilized existing data and research on the Cannell property.

The Cannell property is a 105 acre parcel of land located approximately one mile to the north west of the Village of Rockton Illinois and is approximately one thousand feet north of the intersection of Rockton Road and Prairie Avenue. In the early 1960s, in

an attempt to increase farm yield on the property the owner permitted the City of Beloit Wisconsin to apply municipal sewage sludge to the surface of the lands. In addition, for a number of years in the 1960s and early 1970s municipal sewage sludge were routinely applied to the property. Reviewing plat maps indicates that the property has continuously been used for agricultural purposes and there seems to be no indication of any other land usage.

The property is relatively flat with little local relief. Farm fields borders the property to the west, south, and southeast. The northern boundary of the property is bordered by Langstone Estates which contains approximately 20 homes. Approximately ten homes lie across Prairie Road to the Northeast of the property.

The hydrological study done in the 1980s by the department of Energy and Natural Resources (State Geological Survey) did provide evidence of copper at a level that was three times the background level, therefore constituting an observed release into the groundwater. Although, there was evidence of copper being released into the groundwater, the study did conclude that the effects of sewage application to agricultural lands on hydrology were non-existent or negligible. In addition, there are many private wells and several community water supply wells that could be potentially impacted; however there is has been no evidence that contaminants have been detected within the surrounding private wells. Furthermore, the levels at which copper was observed as a release were not observed at levels that exceeded or met any health base benchmarks. The 15 mile surface water pathway is contiguous to approximately 12.06 miles of sensitive wetland environments. In addition, both the Pecatonica and Rock River are used recreationally and as fisheries. While, there is no surface water intakes used for human

consumption known to exist: the National Heritage database indicates that there may be several protected resources or endangered species within the vicinity of the Cannell Property. Information collected in the road-side ditch and at the point surface-water crosses back under Prairie Road and heads in a south western direction, suggests that contaminants are not migrating via overland flow off the site. In addition, due to the fact that the Cannell property is located nearly ¾ of mile from the closest perennial surface water body, the Cannell property is anticipated to have no impact on the groundwater to surface water pathway.

Several substances were found to be present in surface soils at concentrations that met or exceeded CERCLA criteria for observed contamination. However, the observed contamination in surface soils were not found in concentrations that met or exceeded health-based criteria, therefore it is anticipated that the Cannell property has not impact on the soil exposure and air pathway.

Section 7.0 References

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Figure 1
Site Location Map

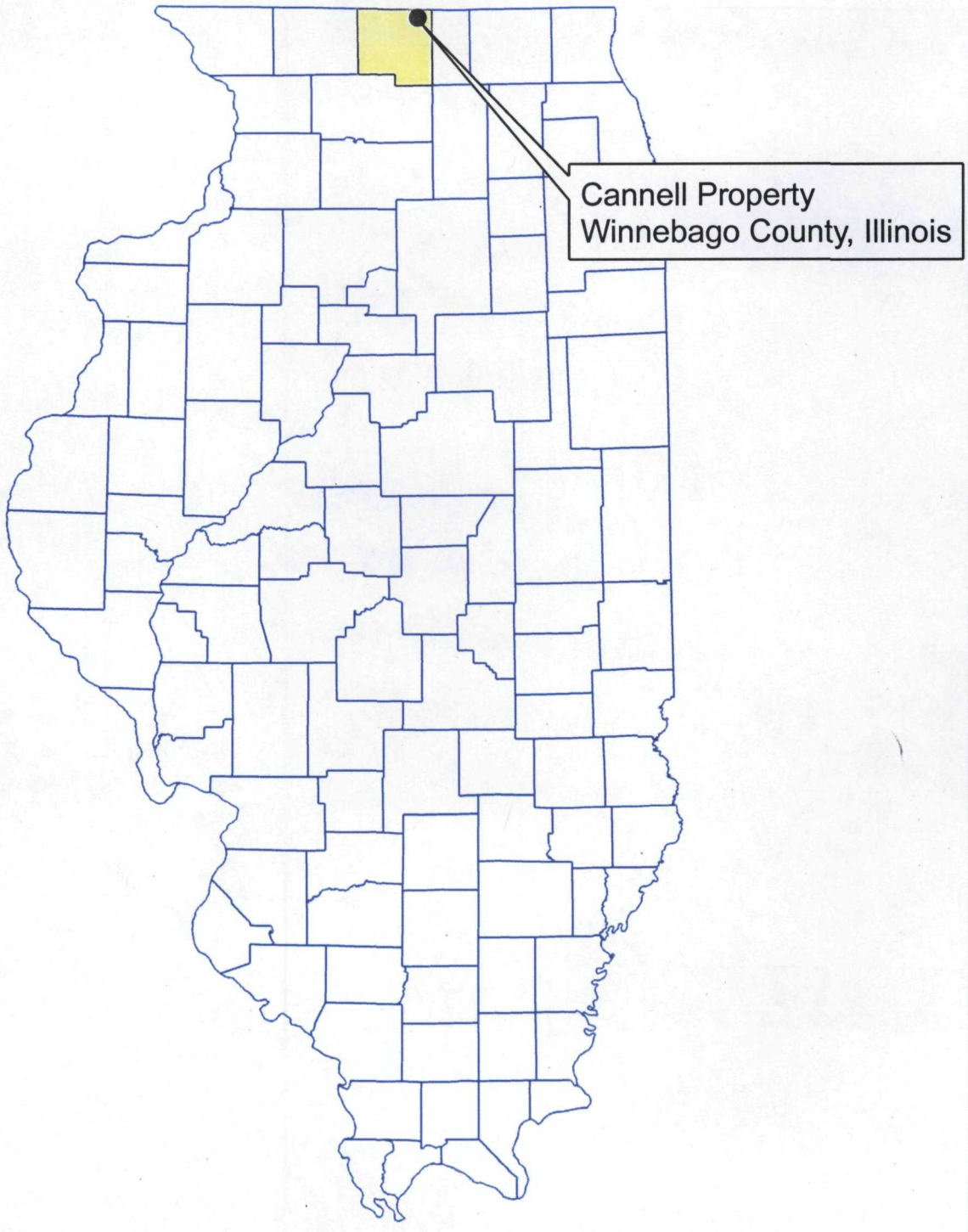


Figure 2
Site Area Topographic Map

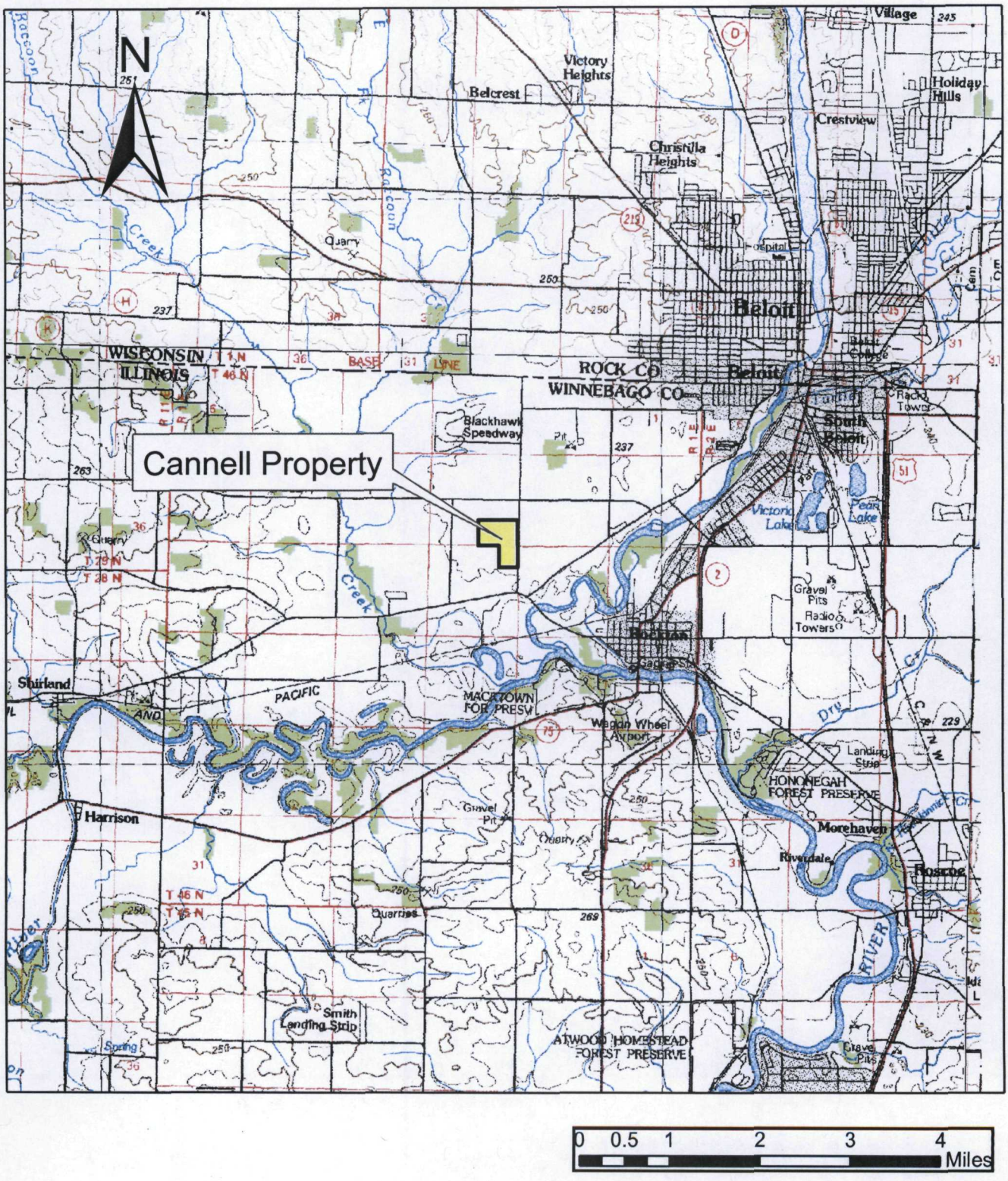


Figure 3
Aerial Photo of Cannell Property
2005

Figure 4
XRF Sample Locations

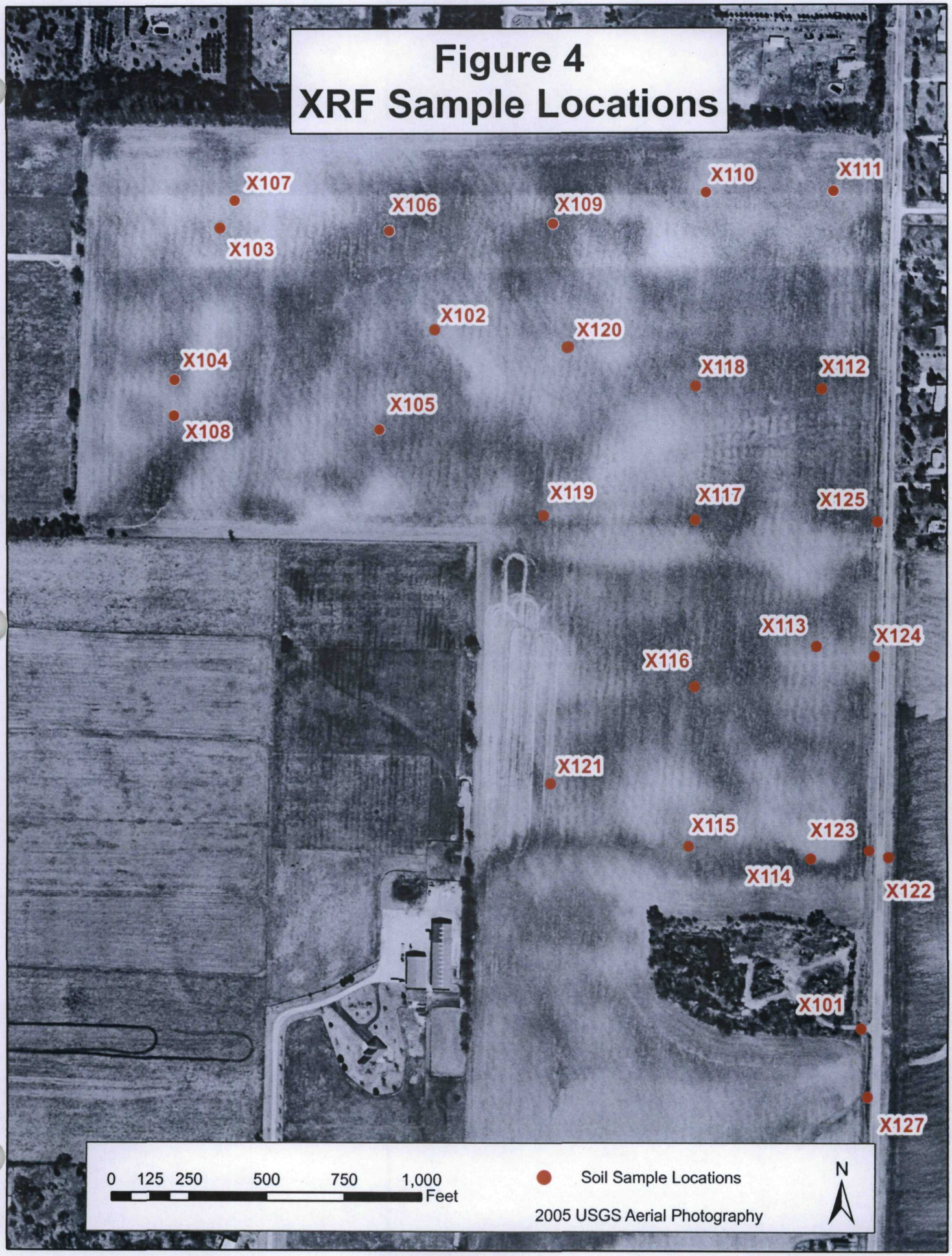


Figure 5
Cannell Property Four Mile Radius

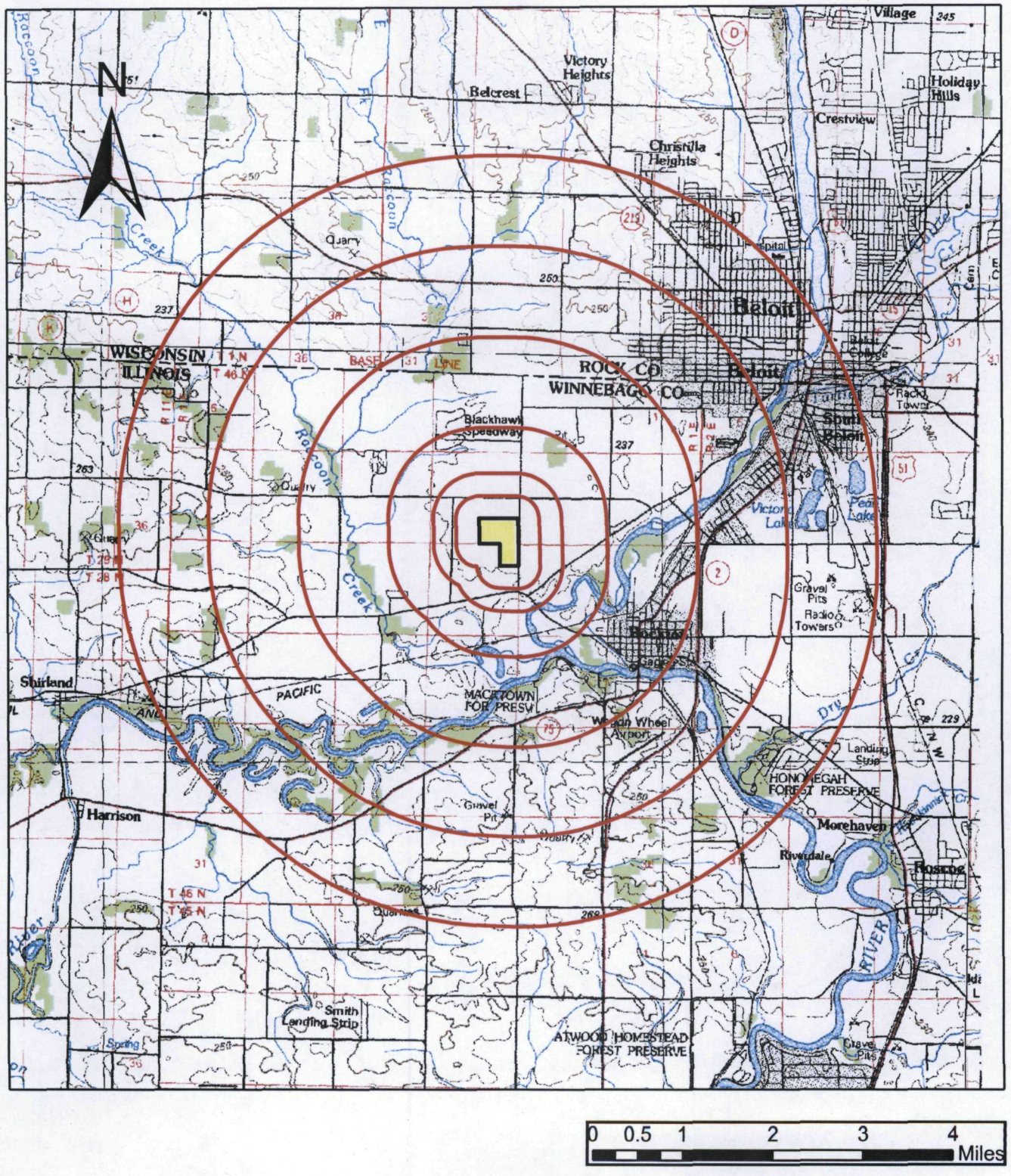


Figure 6
Cannell Property Four Mile Radius
Private Wells

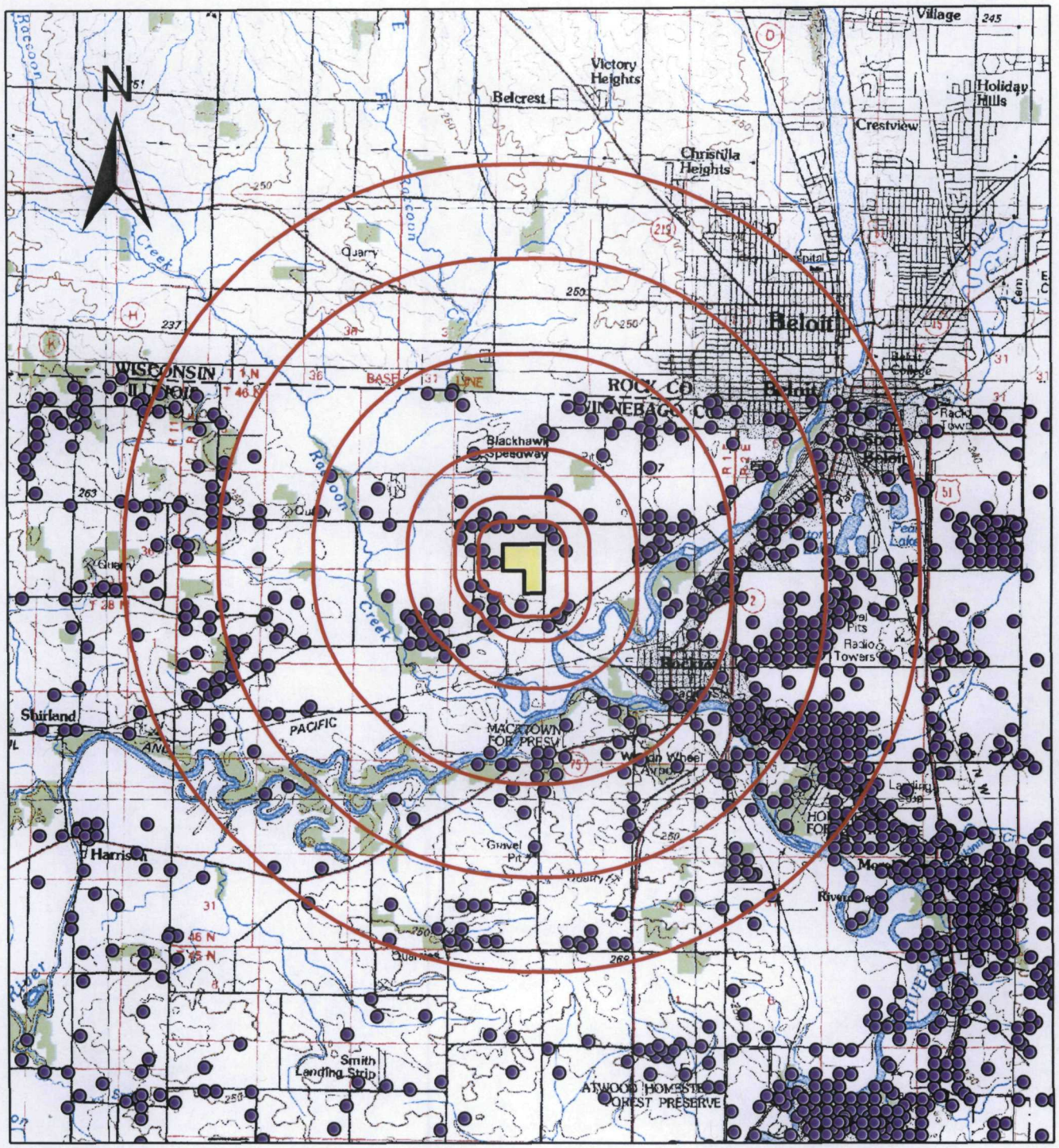
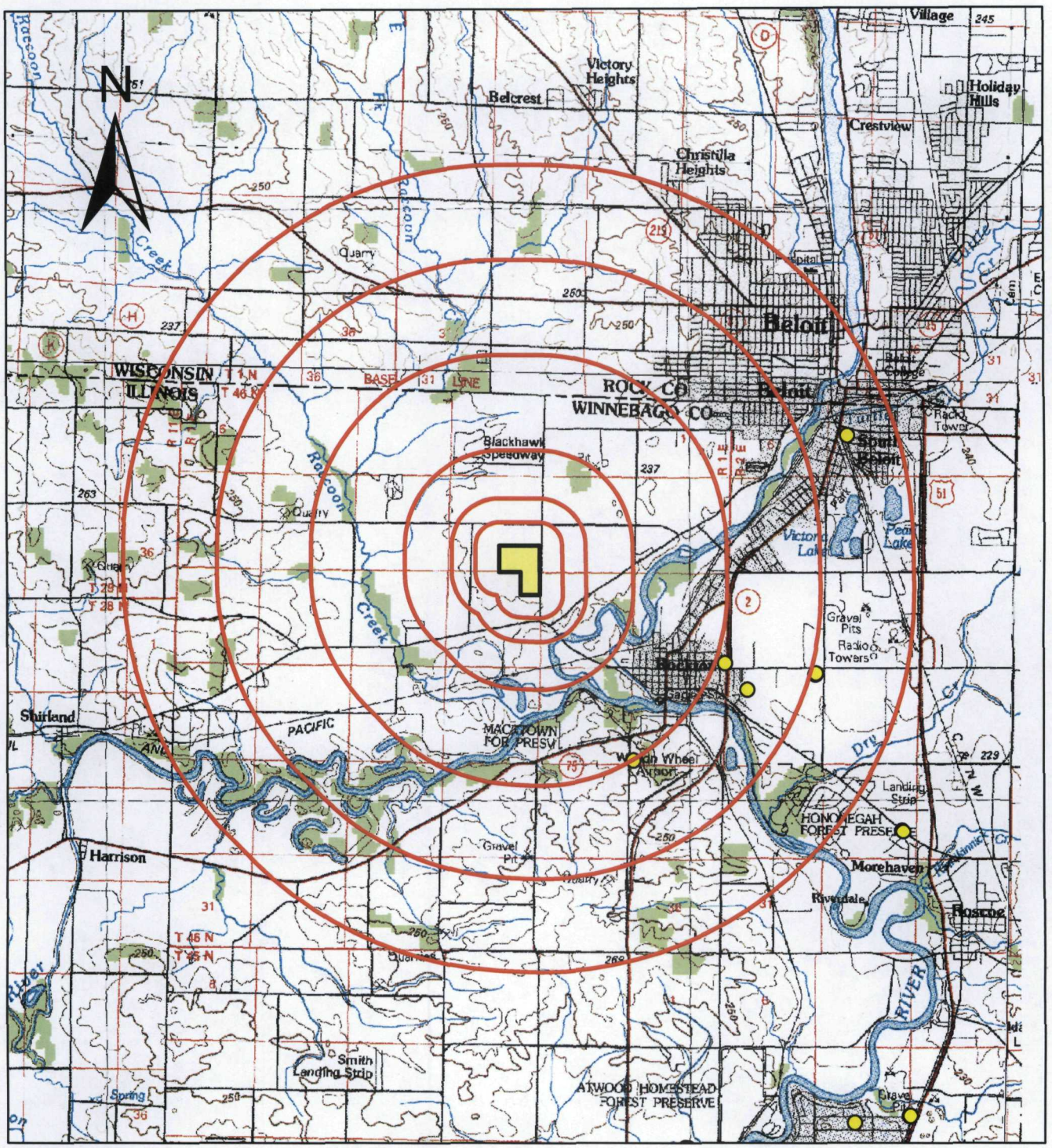
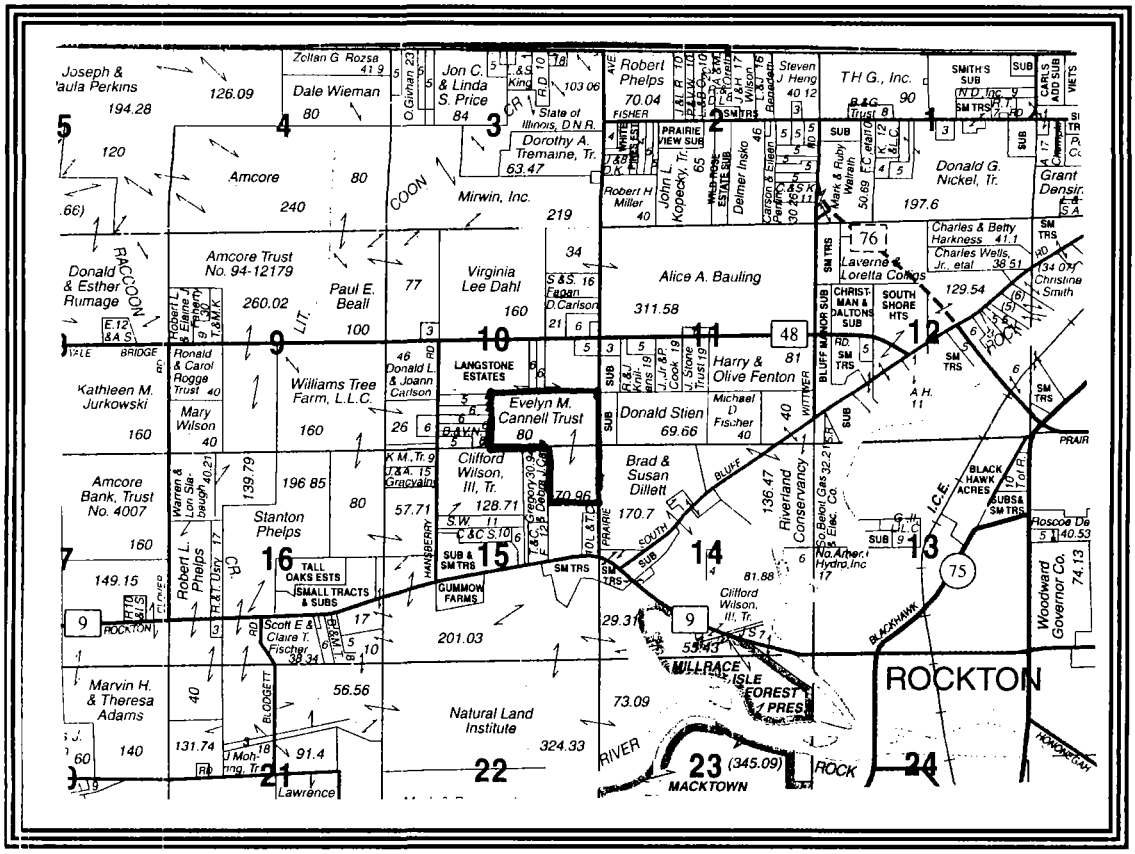


Figure 7
Cannell Property Four Mile Radius
Community Water Supply Wells



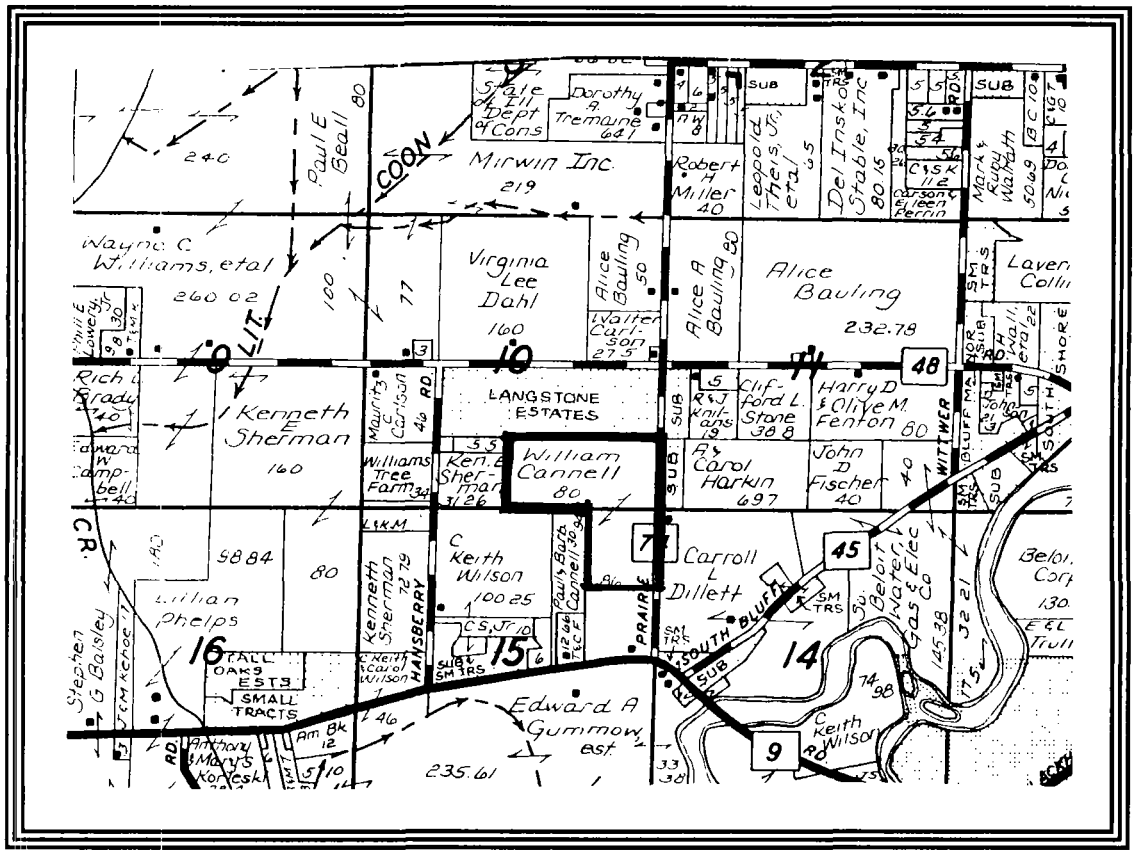
Appendix A
Historical Ownership of Property
Plat Maps

2005 Ownership of Property



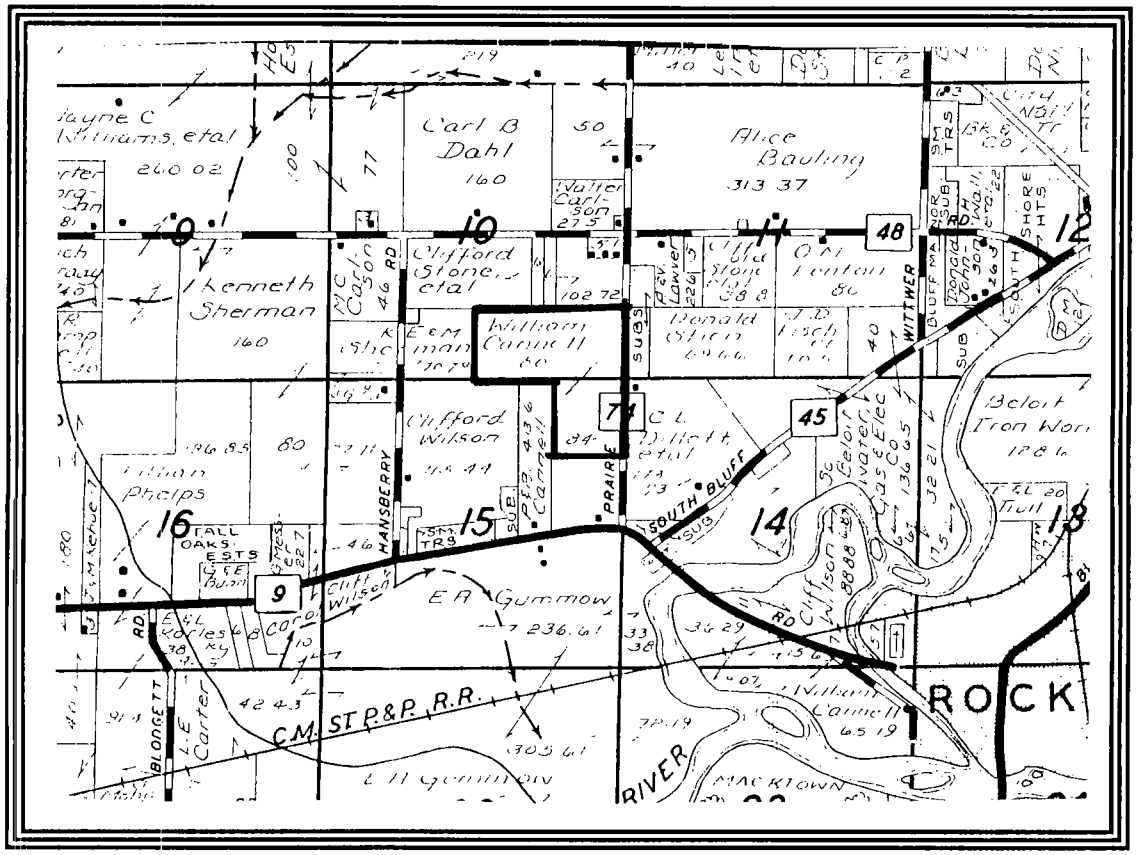
Source: 2005 Land Atlas and Plat Book of Winnebago County, IL. Rockford Map Publishers

1991 Ownership of Property



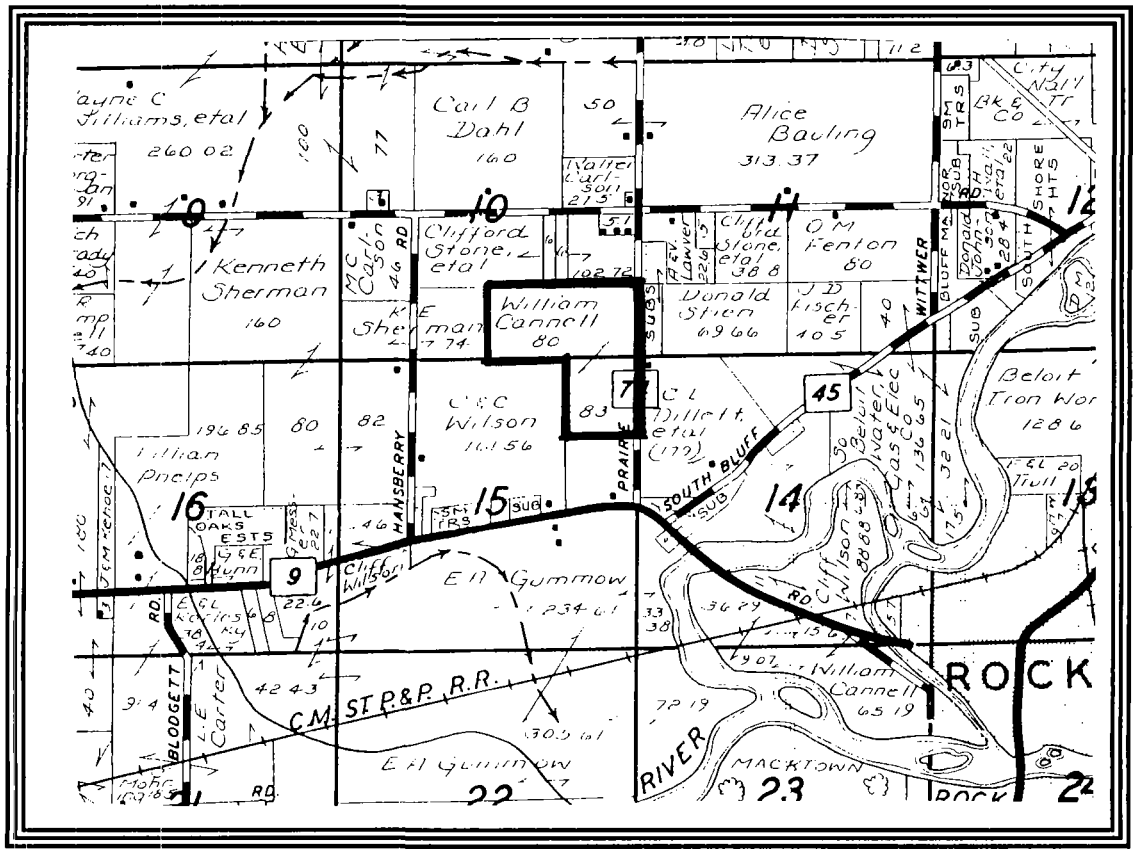
Source: 1991 Land Atlas and Plat Book of Winnebago County, IL. Rockford Map Publishers

1981 Ownership of Property



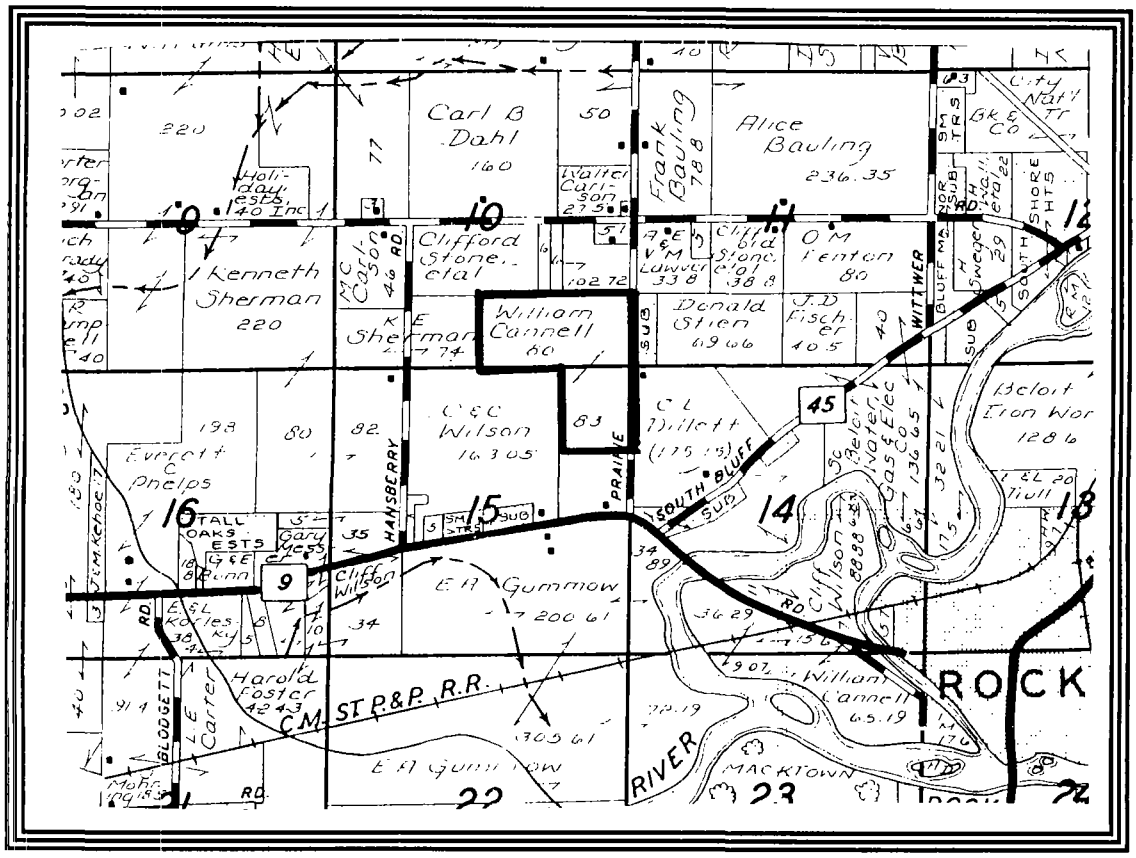
Source: 1981 Land Atlas and Plat Book of Winnebago County, IL. Rockford Map Publishers

1979 Ownership of Property



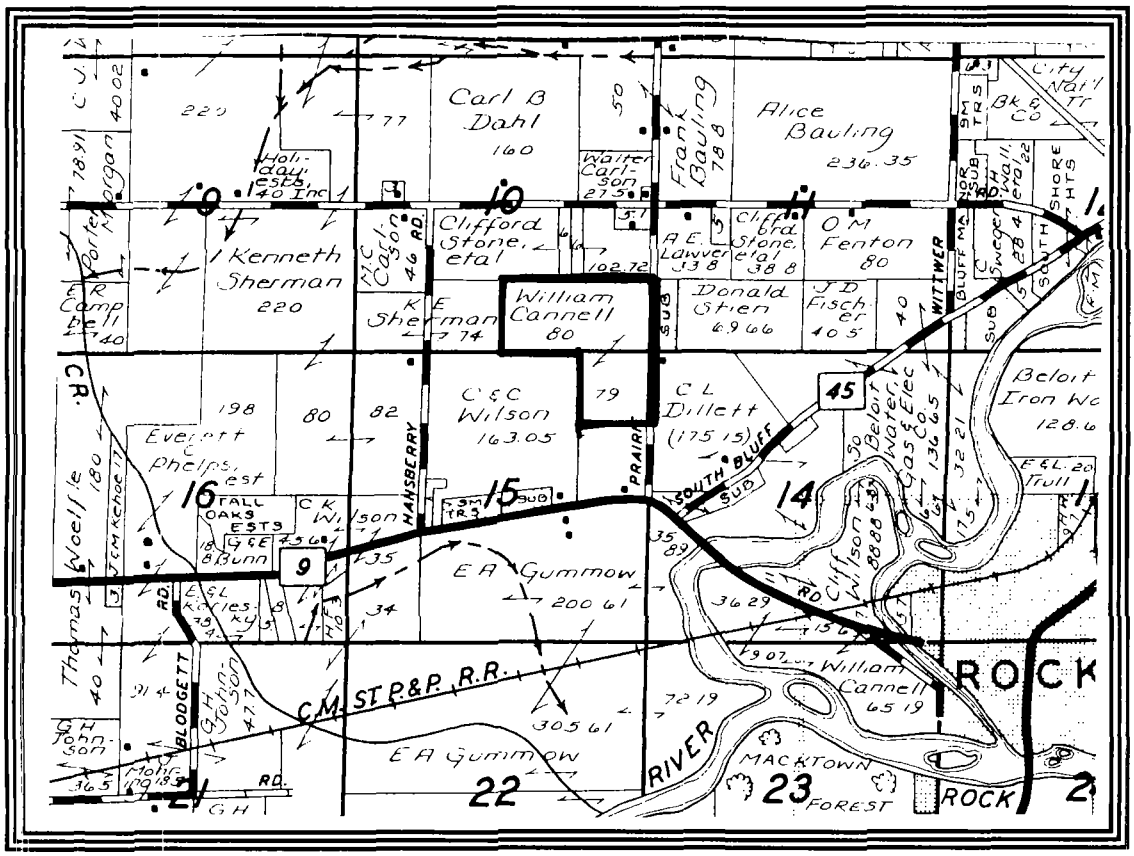
Source: 1979 Land Atlas and Plat Book of Winnebago County, IL. Rockford Map Publishers

1976 Ownership of Property



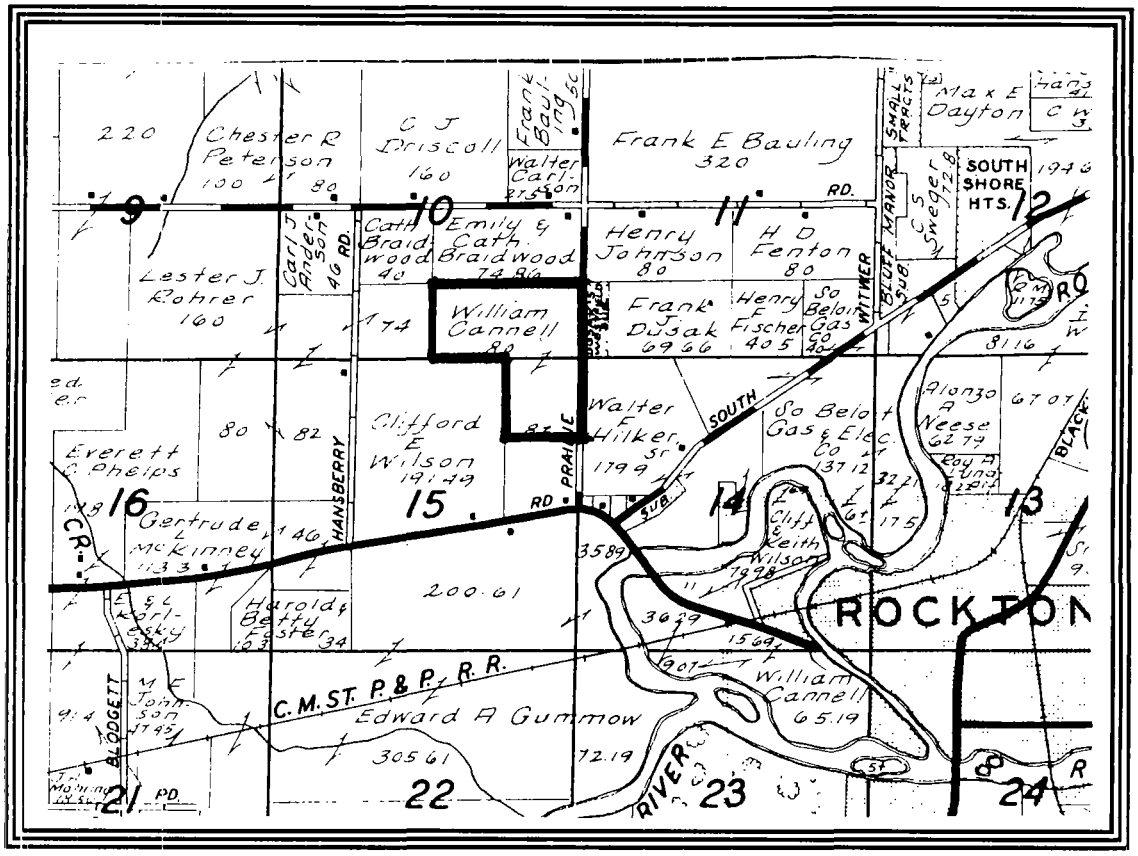
Source: 1976 Land Atlas and Plat Book of Winnebago County, IL. Rockford Map Publishers

1974 Ownership of Property



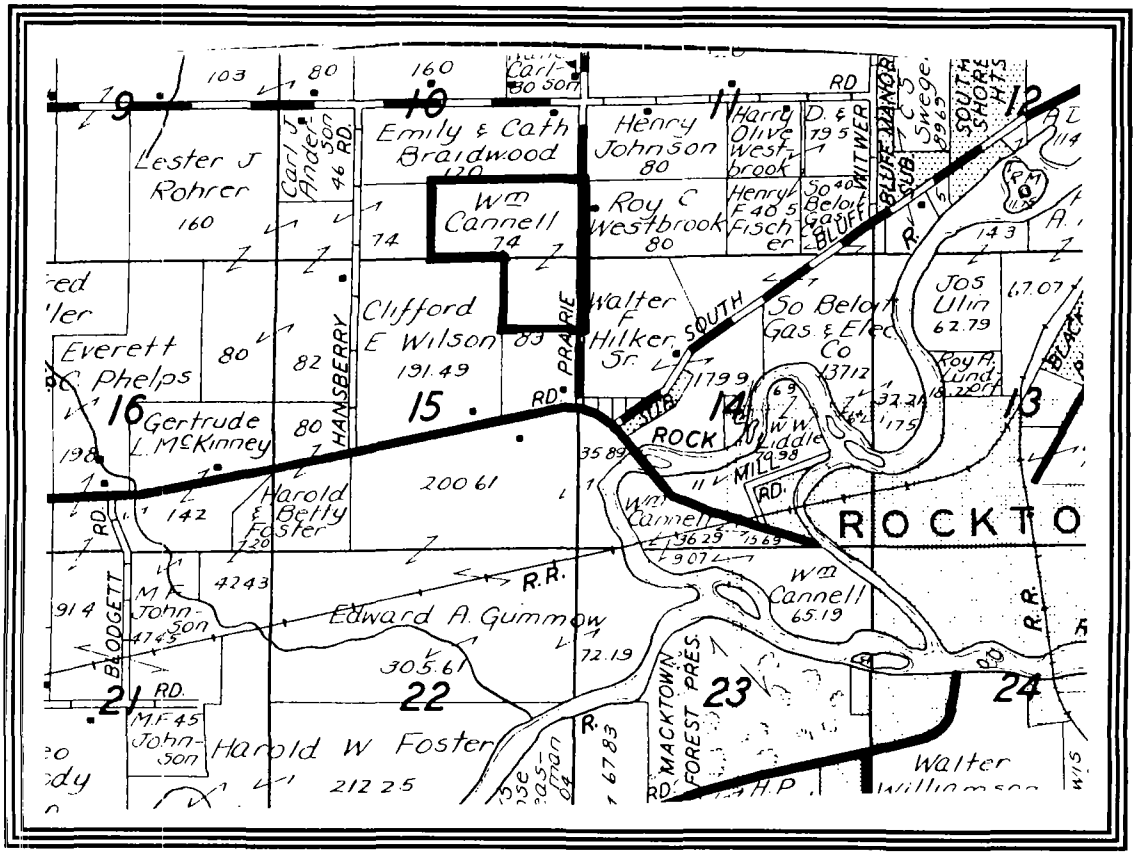
Source: 1974 Atlas and Plat Book of Winnebago County, IL. Rockford Map Publishers

1963 Ownership of Property



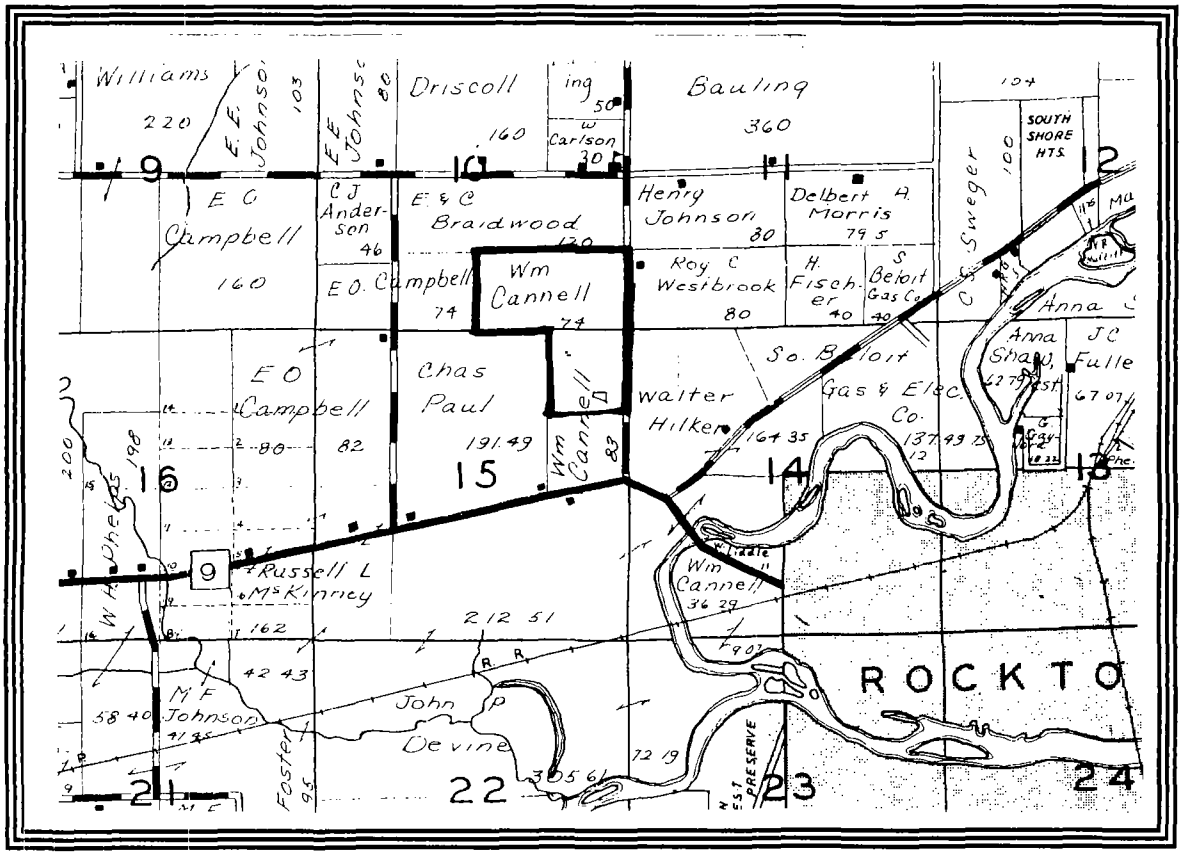
Source: 1963 Official 3 Year Atlas of Winnebago County, IL. Rockford Map Publishers

1957 Ownership of Property



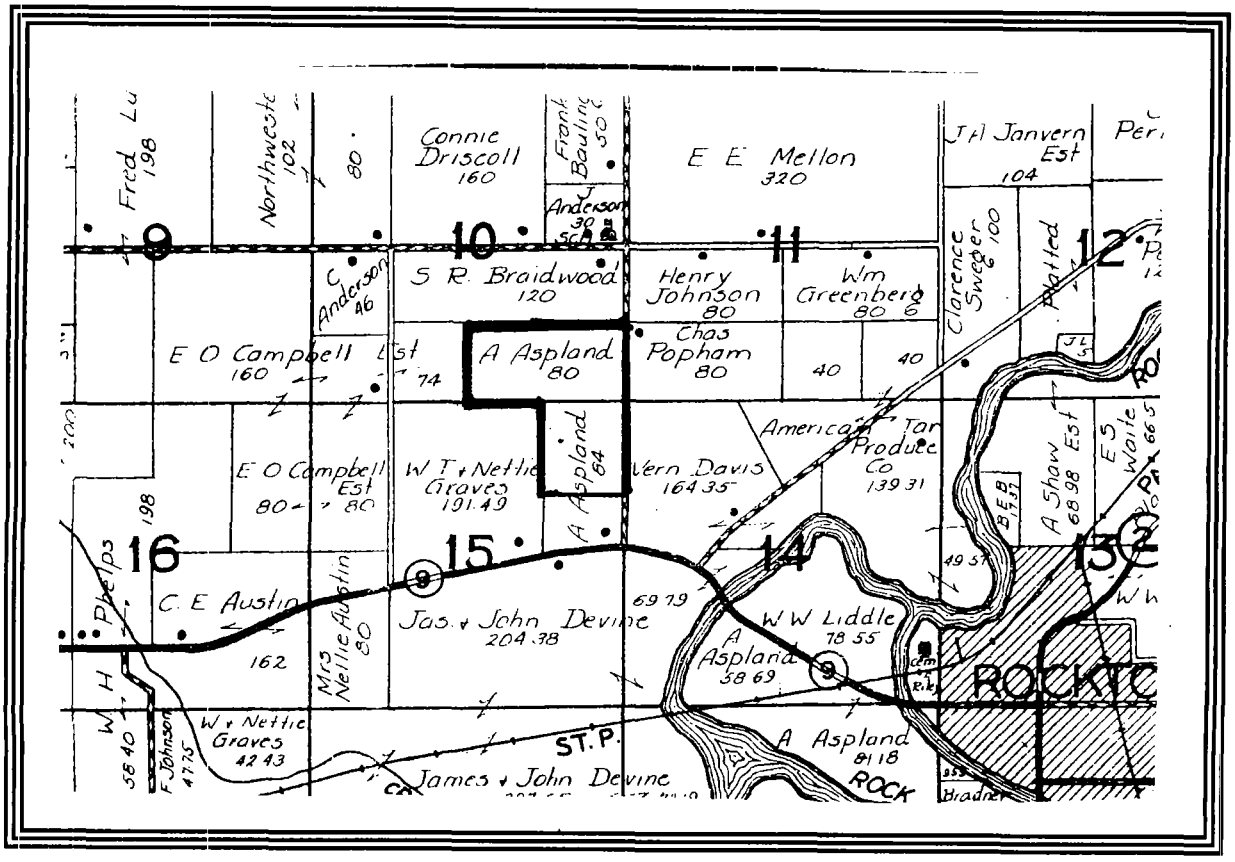
Source: 1957 Farm Plat Book of Winnebago County, IL. Rockford Map Publishers

1949 Ownership of Property



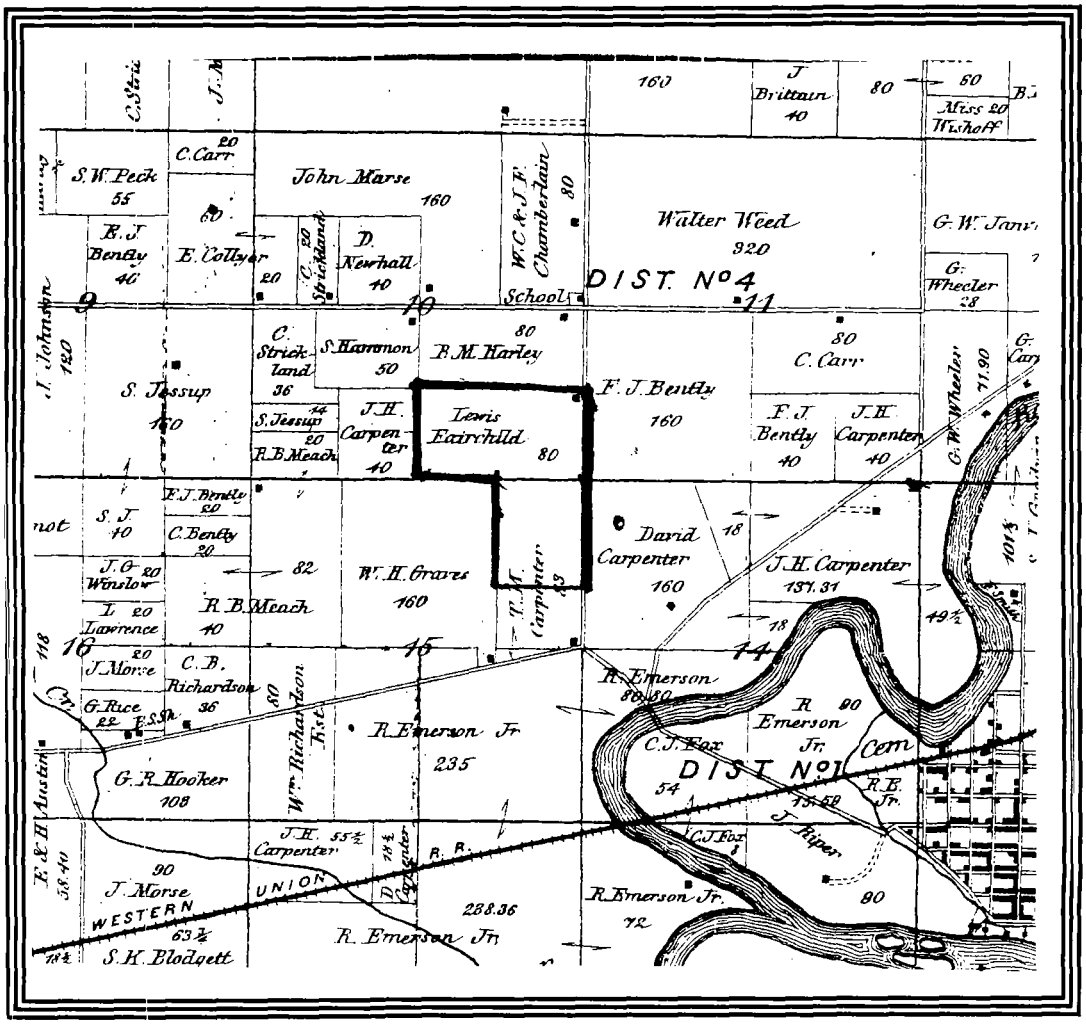
Source: 1949 Plat book of Winnebago County, IL.
Rockford Map Publishers

1934 Property Ownership



Source: 1934 Plat book of Winnebago County, IL.
W.W. Hixson Publishers

1905 Property Ownership



Source: 1905 Combined Atlas and Plat Book for Winnebago County, IL

Appendix B
Illinois EPA Photo Log

ILLINOIS EPA PHOTO LOG

SITE NAME: Cannell Property	
CERCLIS ID: ILN 000510203	**COUNTY:** Winnebago

DATE: November 29, 2006
TIME:
PHOTO BY: Tom Crause
PHOTO NO: No.1
DIRECTION: North
COMMENTS: Taken from Prairie Ave. at the intersection of Prairie and Rockton rd.

DATE: November 29, 2006
TIME:
PHOTO BY: Tom Crause
PHOTO NO: No. 2
DIRECTION: N, NW
COMMENTS: Taken from Prairie Ave. at the southeast corner of the Cannell development property.

DATE: November 29, 2006
TIME:
PHOTO BY: Tom Crause
PHOTO NO: No. 3
DIRECTION: W
COMMENTS: Taken from Prairie Ave. along the eastern boundary of the property. (Trees in background represent the western boundary).

DATE: November 29, 2006
TIME:
PHOTO BY: Tom Crause
PHOTO NO: No. 4
DIRECTION: W
COMMENTS: Taken from Prairie Ave along the eastern boundary. Roadside ditch that was reported as receiving sludge is in the foreground.

DATE: November 29, 2006
TIME:
PHOTO BY: Tom Crause
PHOTO NO: No. 5
DIRECTION: NW
COMMENTS: Taken from Prairie Ave. along the eastern boundary. Trees in the background represent the northern boundary.

DATE: November 29, 2006
TIME:
PHOTO BY: Tom Crause
PHOTO NO: No. 6
DIRECTION: W
COMMENTS: Taken from Prairie Ave. at the northeast corner of the property. Tree line in picture represents the northern boundary of the property.

DATE: November 29, 2006
TIME:
PHOTO BY: Tom Crause
PHOTO NO: No. 7
DIRECTION: N, NE
COMMENTS: Taken from Prairie Ave. at the northeast corner of the property. The picture show the private residents located immediately east of the property.

DATE: November 29, 2006
TIME:
PHOTO BY: Tom Crause
PHOTO NO: No. 8
DIRECTION: SW
COMMENTS: Taken from Prairie Ave. at the northeast corner of the property. Picture shows property in soybean stubble.

DATE: November 29, 2006
TIME:
PHOTO BY: Tom Crause
PHOTO NO: No. 9
DIRECTION: S
COMMENTS: Taken from Prairie Ave. at the NE corner of the property. Picture show the roadside that was reported to have received sludge from the property.

DATE: November 29, 2006
TIME:
PHOTO BY: Tom Crause
PHOTO NO: No. 10
DIRECTION: S
COMMENTS: Taken from Prairie Ave. at a point approximately 200 yards north of the property. Picture shows mailboxes and houses located adjacent to the property, east of Prairie Ave.

DATE: November 29, 2006
TIME:
PHOTO BY: Tom Crause
PHOTO NO: No. 11
DIRECTION: W
COMMENTS: Taken from the south east corner of the property, on the eastside of Prairie Ave. The Picture shows culver that drains surface water from the site (drainage towards the SE under Prairie rd.).

SITE NAME:	Cannell Property
CERCLIS ID	ILN 000510203 **COUNTY:** Winnebago

DATE: 6-6-07
TIME: 15:30
PHOTO BY: Wes King
DIRECTION: West
COMMENTS: SE corner of Cannell Property along Prairie Ave.

DATE: 6-6-07
TIME: 15:30
PHOTO BY: Wes King
DIRECTION: NW
COMMENTS: SE corner of Cannell Property along Prairie Ave.

DATE: : 6-6-07
TIME: 16:30
PHOTO BY: Wes King
DIRECTION: North
COMMENTS: Adjacent to the PPE. Ravine that carries run-off water to the PPE at the Nygren Wetlands

DATE: : 6-6-07
TIME: 16:30
PHOTO BY: Wes King
DIRECTION: South
COMMENTS: Adjacent to the PPE. Run-off flows under fence and out into the Nygren Wetlands on the other side of the fence.

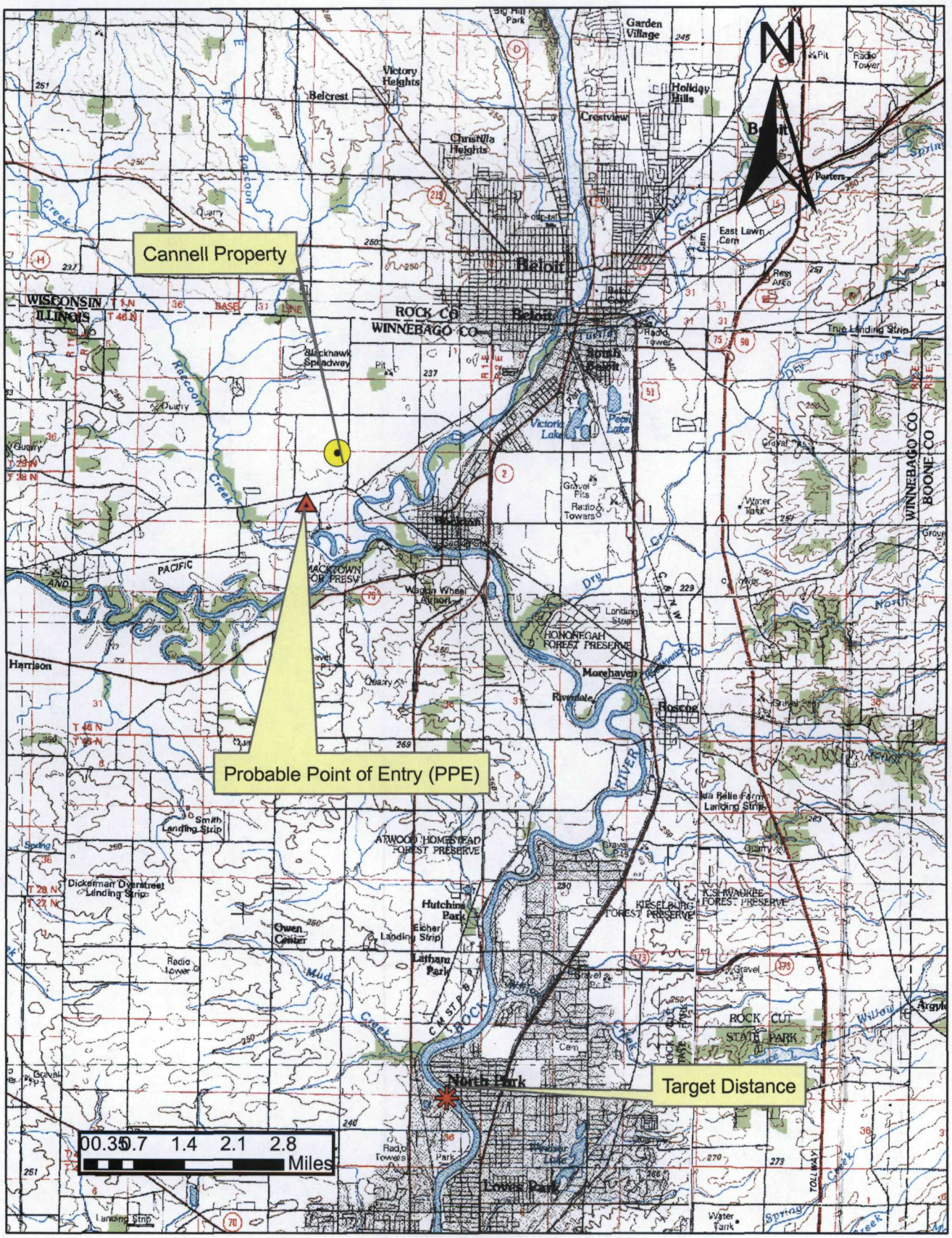
DATE: : 6-6-07
TIME: 16:30
PHOTO BY: Wes King
DIRECTION: SW
COMMENTS: 50 feet NE of the PPE. Ravine that carries run-off water to the PPE. Clear area in background is the Nygren Wetlands.

DATE: : 6-6-07
TIME: 16:45
PHOTO BY: Wes King
DIRECTION: SW
COMMENTS: 20 feet south of Rockton rd. The beginning of the ravine that carries run-off water to the PPE

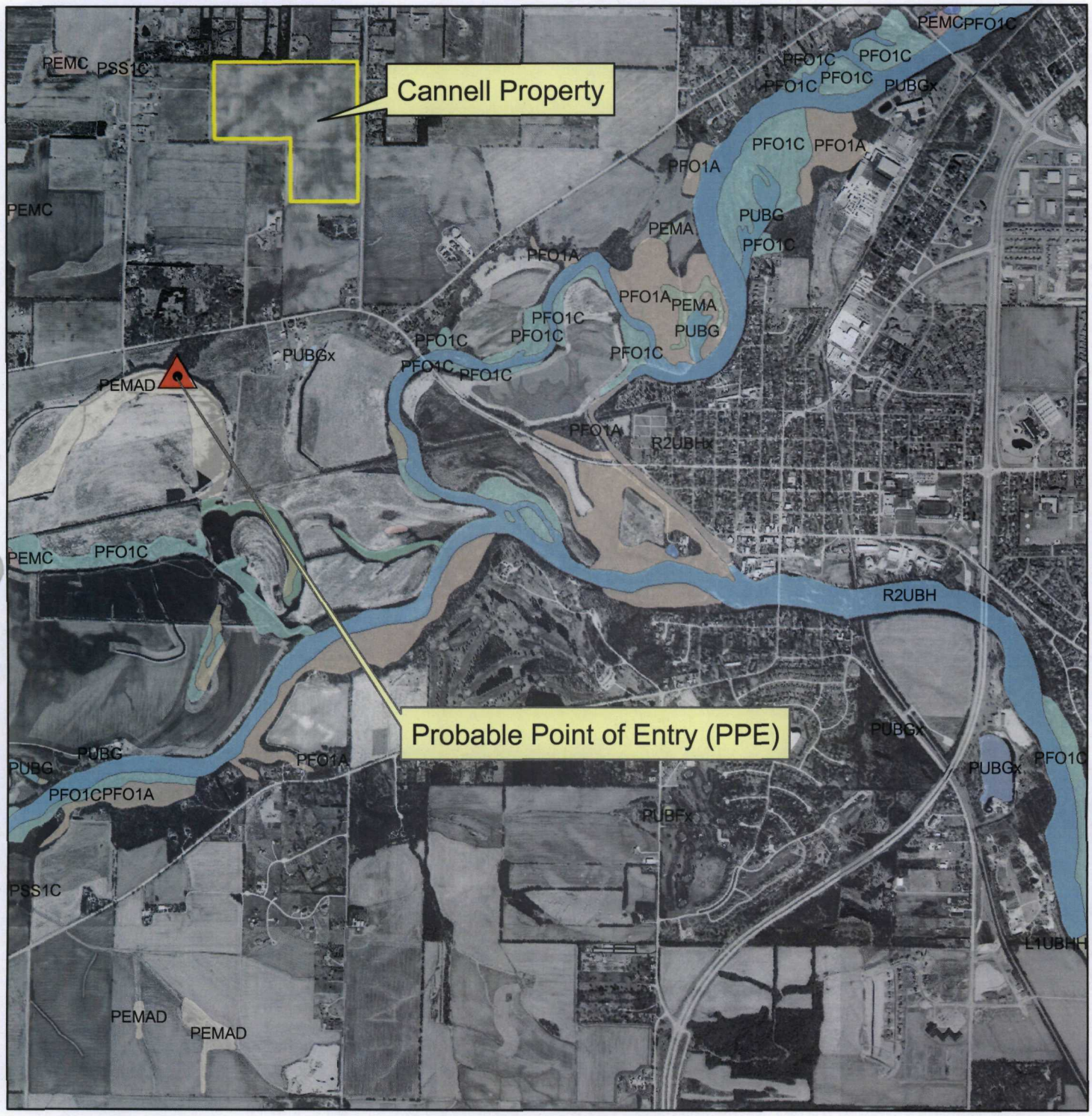
DATE: : 6-6-07
TIME: 17:00
PHOTO BY: Wes King
DIRECTION: East
COMMENTS: "Rockton Lookout" The Nygren Wetlands are seen in the foreground. In the background center of the tree-line is the PPE.

Appendix C
15 mile Surface Water Pathway

Cannell Property 15 mile Surface Water Map



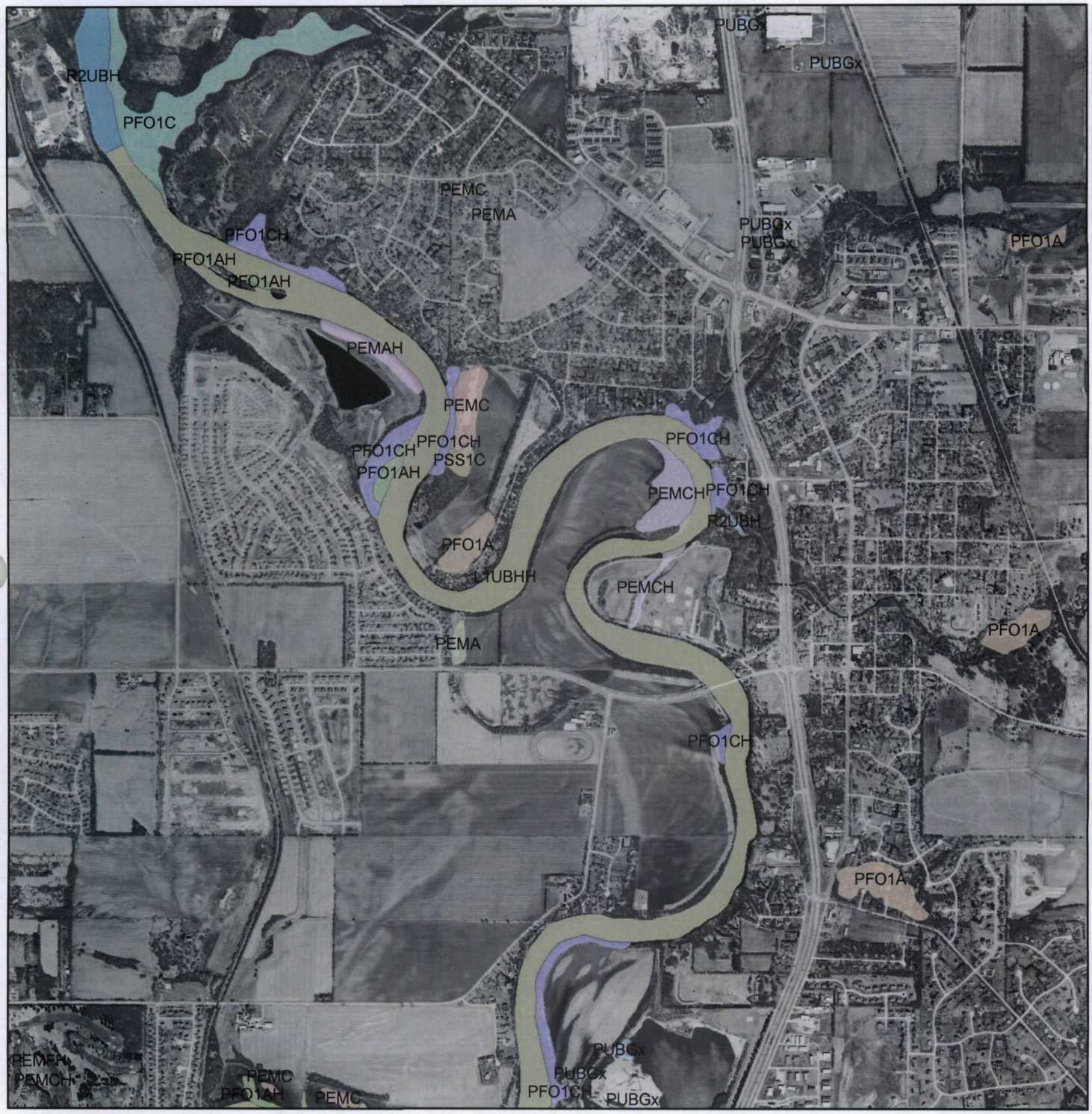
15 Mile Surface Pathway
Wetlands Map (1 of 4)



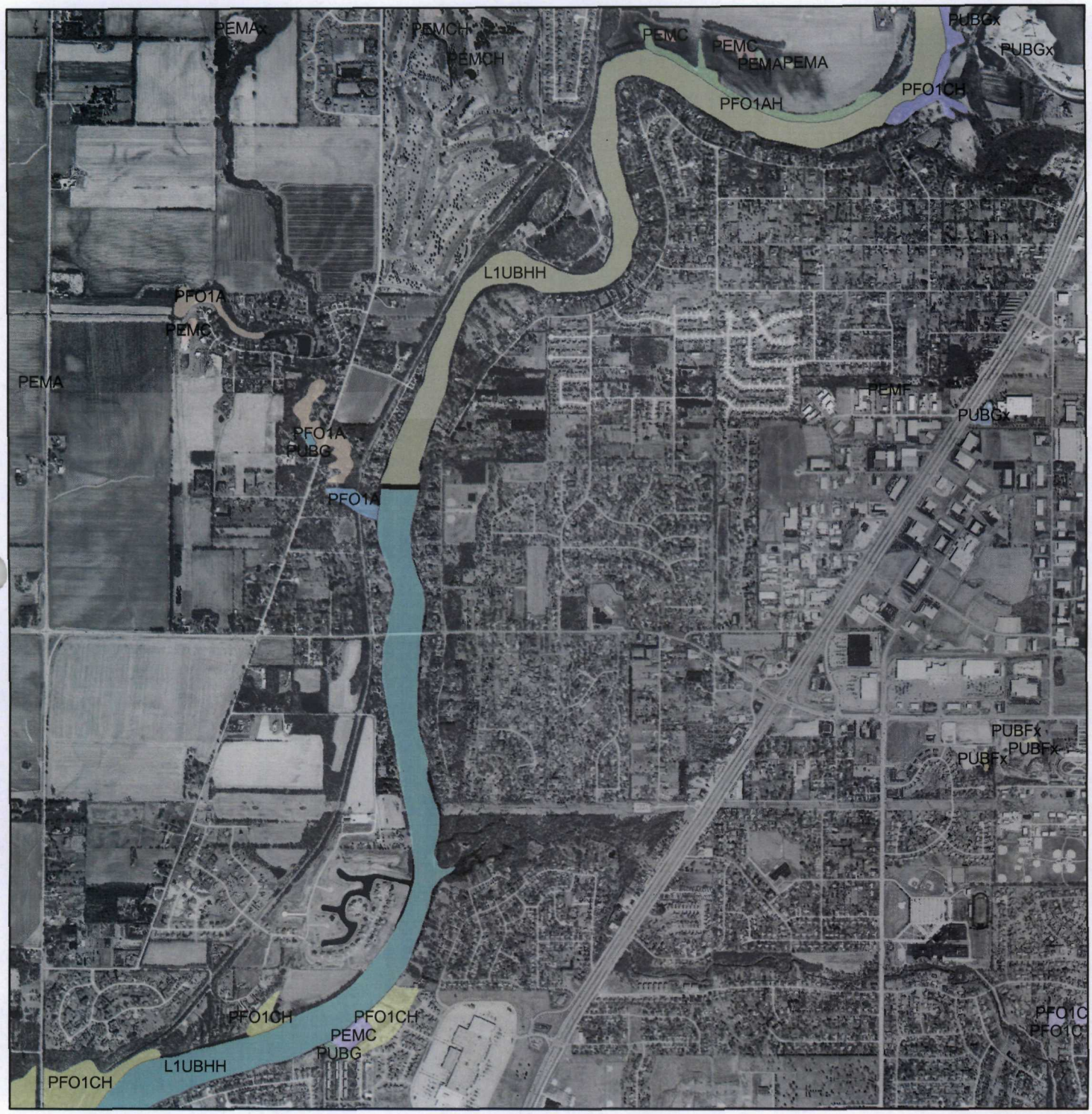
N

0 0.1 0.2 0.4 0.6 0.8 Miles

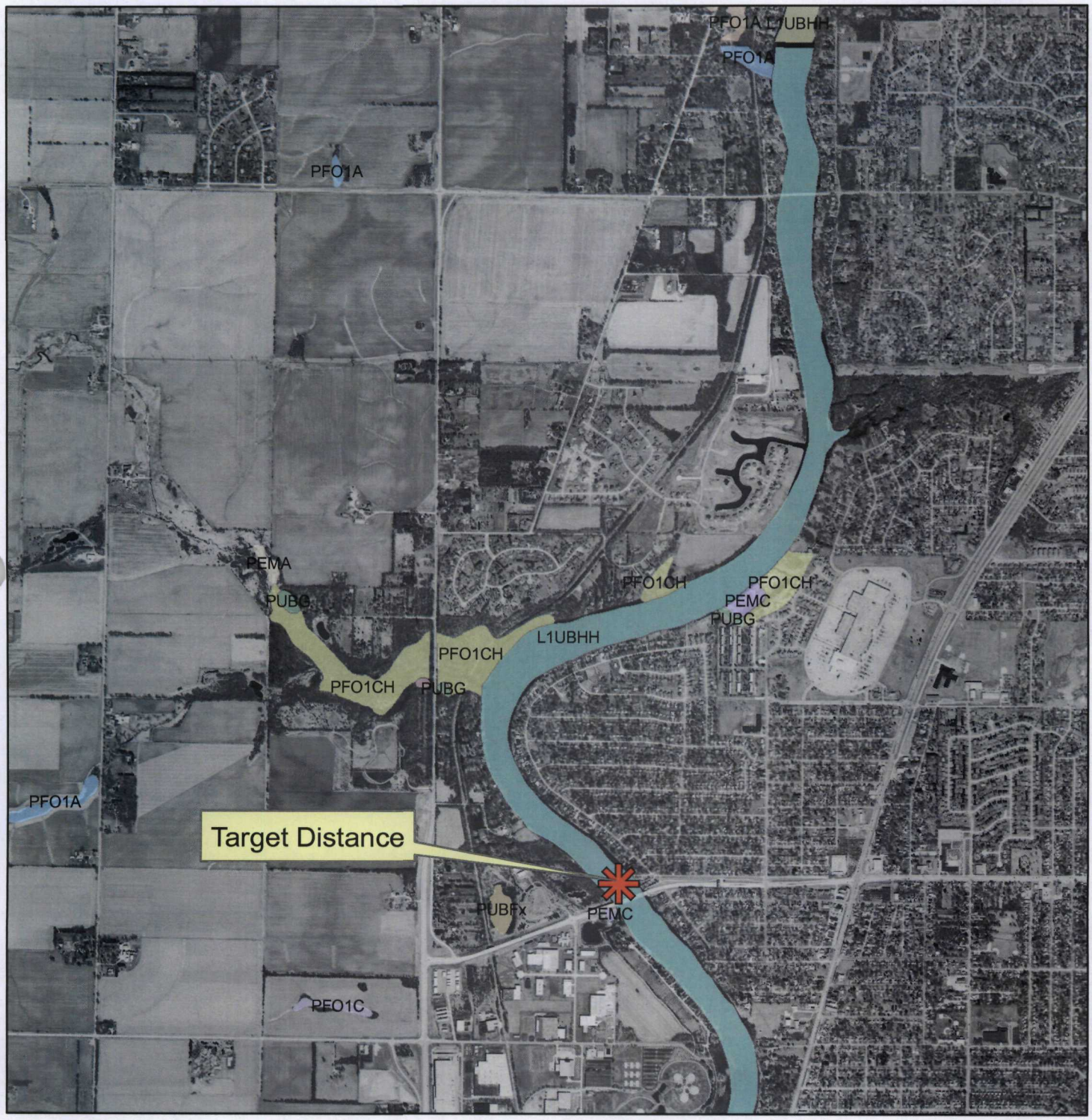
15 Mile Surface Pathway
Wetlands Map (2 of 4)



15 Mile Surface Pathway
Wetlands Map (3 of 4)



15 Mile Surface Pathway
Wetlands Map (4 of 4)



N

0 0.1 0.2 0.4 0.6 0.8
Miles